

00014regUS.ST25.txt
SEQUENCE LISTING

<110> Holmgren, Erik
Kihlen, Mats
Wood, Tim
Ekblom, Jonas

<120> Novel Matrix Metalloproteinases

<130> 00014regUS

<150> 206119

<151> 2000-05-22

<160> 8

<170> PatentIn version 3.0

<210> 1

<211> 1845

<212> DNA

<213> Homo sapiens

<400> 1

```

gcttcagctg aagaaagaga ggaatgaagc gccttctgct tctgtgtttg ttctttataa    60
cattttcttc tgcatttccc ttagtccgga tgacggaaaa tgaagaaaat atgcaactgg    120
ctcaggcata tctcaaccag ttctactctc ttgaaataga agggaatcat cttgttcaaa    180
gcaagaatag gagtctcata gatgacaaaa ttcgggaaat gcaagcattt tttggattga    240
cagtgactgg aaaactggac tcaaacaccc ttgagatcat gaagacaccc aggtgtgggg    300
tgcctgatgt gggccagtat ggctacaccc tccctgggtg gagaaaatac aacctcacct    360
acagaataat aaactatact ccgatatgg cagagctgc tgtggatgag gctatccaag    420
aaggtttaga agtgtggagc aaagtcactc cactaaaatt caccaagatt tcaaagggga    480
ttgcagacat catgattgcc tttaggactc gagtccatgg tcggtgtcct cgctattttg    540
atggtccctt gggagtgtt ggccatgcct ttcctcctgg tccgggtctg ggtggtgaca    600
ctcattttga tgaggatgaa aactggacca aggatggagc aggattcaac ttgtttcttg    660
tggctgtctc tgaatttggg catgcaactg ggctctctca ctccaatgat caaacagcct    720
tgatgttccc aaattatgtc tccttgatc ccagaaaata ccactttct caggatgata    780
tcaatggaat ccagtccatc tatggaggtc tgcctaaggt acctgctaag ccaaaggaac    840
ccactatacc ccatgcctgt gaccctgact tgacttttga cgctatcaca actttccgca    900
gagaagtaat gttctttaaa ggcaggcacc tatggaggat ctattatgat atcacggatg    960
ttgagtttga attaattgct tcattctggc catctctgcc agctgatctg caagctgcat   1020
acgagaaccc cagagataag attctggttt ttaaagatga aaacttctgg atgatcagag   1080
gatatgctgt cttgccagat tatcccaaat ccatccatac attaggtttt ccaggacgtg   1140
tgaagaaaat agatgcagcc gtctgtgata agaccacaag aaaaacctac ttctttgttg   1200
gcatttggtg ctggagggtt gatgaaatga cccaaaccat ggacaaagga ttcccgcaga   1260

```

00014regUS.ST25.txt

```

gagtggtaaa acactttcct ggaatcagta tccgtgttga tgctgctttc cagtacaaag 1320
gattcttctt tttcagccgt ggatcaaagc aatttgaata caacattaag acaaagaata 1380
ttacccgaat catgagaact aatacttggt ttcaatgcaa agaaccaaag aactcctcat 1440
ttggttttga tatcaacaag gaaaaagcac attcaggagg cataaagata ttgtatcata 1500
agagtttaag cttgtttatt ttgggtattg ttcatattgct gaaaaacact tctatttatc 1560
aataaattca tagacctaaa ataaacctca acaggctctt taatataaat tctgcttcaa 1620
aatagaataa aaccattctt taacaacaag ttgctgggcc tagttctaaa tatccaaatt 1680
caatggccat tttgagctgc ctgattcttt taataggaag ttattatgta gaaacaaaaa 1740
tctctgactg tactttaagc ctatttcatg ctttgtggac ttggagaaga catgtcttat 1800
aactgaatac tgaaacattt attaaaccaa tctttagcat tctaa 1845

```

```

<210> 2
<211> 989
<212> DNA
<213> Homo sapiens

```

```

<400> 2
gacaaatgag ggtttggcat gcagctcgtc atcttaagag ttactatctt cttgccctgg 60
tgtttcgccg ttccagtgcc ccctgtgca gaccataaag gatgggactt tgttgagggc 120
tatttccatc aatttttctt gaccaagaag gagtgcgccac tccttaccga ggagacacaa 180
acacagctcc tgcaacaatt ccacggaat gggacagacc tacttgacat gcagatgcat 240
gctctgctac accagcccca ctgtggggtg cctgatgggt ccgacacctc catctcgcca 300
ggaagatgca agtggaataa gcacactcta acttacagga ttatcaatta cccacatgat 360
atgaagccat ccgcagtga agacagtata tataatgcag tttccatctg gagcaatgtg 420
acccttttga tattccagca agtgcagaat ggagatgcag acatcaaggt ttctttctgg 480
cagtgggccc atgaagatgg ttggcccttt gatgggccag gtggtatctt aggccatgcc 540
tttttaccaa attctggaaa tcctggagtt gtccattttg acaagaatga aactgggtca 600
gcttcagaca ctggatataa tctgttcctg gttgcaactc atgagattgg gcattctttg 660
ggcctgcagc actctgggaa tcagagctcc ataatgtacc ccacttactg gtatcacgac 720
cctagaacct tccagctcag tgccgatgat atccaaagga tccagcattt gtatggagaa 780
aaatgttcat ctgacatacc ttaatgttag cacagaggac ttattcaacc tgcctttca 840
gggagtttat tggaggatca aagaactgaa agcactagag cagccttggg gactgctagg 900
atgaagccct aaagaatgca acctagtcag gttagctgaa ccgacactca aaacgtact 960
gagtcacaat aaagattggt ttaaagagt 989

```

```

<210> 3
<211> 1597

```

<212> DNA

<213> Homo sapiens

<400> 3

gctccccgag ccgggctgca ccggaggcgg cgagatggtc gcgcgcgtcg gcctcctgct	60
gcgcgccctg cagctgctac tgtggggcca cctggacgcc cagcccgcgg agcgcggagg	120
ccaggagctg cgcaaggagg cggaggcatt cctagagaag tacggatacc tcaatgaaca	180
ggtecccaaa gctcccacct ccactcgatt cagcgatgcc atcagagcgt ttcagtgggt	240
gtcccagcta cctgtcagcg gcgtgttgga ccgcgccacc ctgcgcaga tgactcgtcc	300
ccgctgcggg gttacagata ccaacagtta tgcggcctgg gctgagagga tcagtgactt	360
gtttgctaga caccggacca aaatgaggcg taagaaacgc tttgcaaagc aaggttaaca	420
atggtacaag cagcacctct cctaccgcct ggtgaactgg cctgagcatc tccggagccg	480
gcagttcggg gcgcctgctg gcgcgccttc cagttgtgga gcaacgtctc agcgtggag	540
ttctgggagg ccccagccac aggccccgct gacatccggc tcaccttctt ccaaggggac	600
cacaacgatg ggctgggcaa tgcctttgat ggcccagggg gcgcctggc gcacgccttt	660
cctgccccgc cgcggcgaag cgcacttcca ccaagatgag cgctggtccc tgagccgccg	720
ccgcgggcgc aacctgttcg tgggtgctggc gcacgagatc ggtcacacgc ttggcctcac	780
ccactcgcgc gcgcgcgcgc cgctcatggc gccctactac aagaggctgg gccgcgacgc	840
gctgctcagc tgggacgacg tgctggccgt gcagagcctg tatgggaagc ccctaggggg	900
ctcagtggcc gtccagctcc caggaaagct gttcactgac tttgagacct gggactccta	960
cagcccccaa ggaaggcgcc ctgaaacgca gggccctaaa tactgtcact cttccttcga	1020
tgccatcact gtagacaggc aacagcaact gtacattttt aaaggagacc atttctggga	1080
ggtggcagct gatggcaacg tctcagagcc ccgtccactg caggaaagat gggtcgggct	1140
gccccccaac attgaggctg cggcagtgtc attgaatgat ggagatttct acttcttcaa	1200
agggggctga tgctggaggt tccggggccc caagccagtg tggggtctcc cacagctgtg	1260
ccgggcaggg ggcctgcccc gccatcctga cgcgcctc ttcttcctc ctctgcgccg	1320
cctcatcctc ttcaagggtg cccgtacta cgtgctggcc cgagggggac tgcaagtga	1380
gccctactac cccgaagtc tgcaggactg gggaggcatc cctgaggagg tcagcggcgc	1440
cctgccgagg cccgatggct ccatcatctt cttccgagat gaccgtact ggcgcctcga	1500
ccaggccaaa ctgcaggcaa ccacctcggg ccgctgggcc accgagctgc cctggatggg	1560
ctgctggcat gccaaactcg ggagcgccct gttctga	1597

<210> 4

<211> 513

<212> PRT

<213> Homo sapiens

<400> 4

Met Lys Arg Leu Leu Leu Leu Cys Leu Phe Phe Ile Thr Phe Ser Ser
 1 5 10 15
 Ala Phe Pro Leu Val Arg Met Thr Glu Asn Glu Glu Asn Met Gln Leu
 20 25 30
 Ala Gln Ala Tyr Leu Asn Gln Phe Tyr Ser Leu Glu Ile Glu Gly Asn
 35 40 45
 His Leu Val Gln Ser Lys Asn Arg Ser Leu Ile Asp Asp Lys Ile Arg
 50 55 60
 Glu Met Gln Ala Phe Phe Gly Leu Thr Val Thr Gly Lys Leu Asp Ser
 65 70 75 80
 Asn Thr Leu Glu Ile Met Lys Thr Pro Arg Cys Gly Val Pro Asp Val
 85 90 95
 Gly Gln Tyr Gly Tyr Thr Leu Pro Gly Trp Arg Lys Tyr Asn Leu Thr
 100 105 110
 Tyr Arg Ile Ile Asn Tyr Thr Pro Asp Met Ala Arg Ala Ala Val Asp
 115 120 125
 Glu Ala Ile Gln Glu Gly Leu Glu Val Trp Ser Lys Val Thr Pro Leu
 130 135 140
 Lys Phe Thr Lys Ile Ser Lys Gly Ile Ala Asp Ile Met Ile Ala Phe
 145 150 155 160
 Arg Thr Arg Val His Gly Arg Cys Pro Arg Tyr Phe Asp Gly Pro Leu
 165 170 175
 Gly Val Leu Gly His Ala Phe Pro Pro Gly Pro Gly Leu Gly Gly Asp
 180 185 190
 Thr His Phe Asp Glu Asp Glu Asn Trp Thr Lys Asp Gly Ala Gly Phe
 195 200 205
 Asn Leu Phe Leu Val Ala Ala His Glu Phe Gly His Ala Leu Gly Leu
 210 215 220
 Ser His Ser Asn Asp Gln Thr Ala Leu Met Phe Pro Asn Tyr Val Ser
 225 230 235 240
 Leu Asp Pro Arg Lys Tyr Pro Leu Ser Gln Asp Asp Ile Asn Gly Ile
 245 250 255
 Gln Ser Ile Tyr Gly Gly Leu Pro Lys Val Pro Ala Lys Pro Lys Glu
 260 265 270
 Pro Thr Ile Pro His Ala Cys Asp Pro Asp Leu Thr Phe Asp Ala Ile
 275 280 285
 Thr Thr Phe Arg Arg Glu Val Met Phe Phe Lys Gly Arg His Leu Trp
 290 295 300
 Arg Ile Tyr Tyr Asp Ile Thr Asp Val Glu Phe Glu Leu Ile Ala Ser
 305 310 315 320
 Phe Trp Pro Ser Leu Pro Ala Asp Leu Gln Ala Ala Tyr Glu Asn Pro
 325 330 335
 Arg Asp Lys Ile Leu Val Phe Lys Asp Glu Asn Phe Trp Met Ile Arg

340 345 350
 Gly Tyr Ala Val Leu Pro Asp Tyr Pro Lys Ser Ile His Thr Leu Gly
 355 360 365
 Phe Pro Gly Arg Val Lys Lys Ile Asp Ala Ala Val Cys Asp Lys Thr
 370 375 380
 Thr Arg Lys Thr Tyr Phe Phe Val Gly Ile Trp Cys Trp Arg Phe Asp
 385 390 395 400
 Glu Met Thr Gln Thr Met Asp Lys Gly Phe Pro Gln Arg Val Val Lys
 405 410 415
 His Phe Pro Gly Ile Ser Ile Arg Val Asp Ala Ala Phe Gln Tyr Lys
 420 425 430
 Gly Phe Phe Phe Phe Ser Arg Gly Ser Lys Gln Phe Glu Tyr Asn Ile
 435 440 445
 Lys Thr Lys Asn Ile Thr Arg Ile Met Arg Thr Asn Thr Trp Phe Gln
 450 455 460
 Cys Lys Glu Pro Lys Asn Ser Ser Phe Gly Phe Asp Ile Asn Lys Glu
 465 470 475 480
 Lys Ala His Ser Gly Gly Ile Lys Ile Leu Tyr His Lys Ser Leu Ser
 485 490 495
 Leu Phe Ile Phe Gly Ile Val His Leu Lys Asn Thr Ser Ile Tyr
 500 505 510

Gln

<210> 5
 <211> 259
 <212> PRT
 <213> Homo sapiens

<400> 5

Met Gln Leu Val Ile Leu Arg Val Thr Ile Phe Leu Pro Trp Cys Phe
 1 5 10 15
 Ala Val Pro Val Pro Pro Ala Ala Asp His Lys Gly Trp Asp Phe Val
 20 25 30
 Glu Gly Tyr Phe His Gln Phe Phe Leu Thr Lys Lys Glu Ser Pro Leu
 35 40 45
 Leu Thr Gln Glu Thr Gln Thr Gln Leu Leu Gln Gln Phe His Arg Asn
 50 55 60
 Gly Thr Asp Leu Leu Asp Met Gln Met His Ala Leu Leu His Gln Pro
 65 70 75 80
 His Cys Gly Val Pro Asp Gly Ser Asp Thr Ser Ile Ser Pro Gly Arg
 85 90 95
 Cys Lys Trp Asn Lys His Thr Leu Thr Tyr Arg Ile Ile Asn Tyr Pro
 100 105 110
 His Asp Met Lys Pro Ser Ala Val Lys Asp Ser Ile Tyr Asn Ala Val
 115 120 125

Ser Ile Trp Ser Asn Val Thr Pro Leu Ile Phe Gln Gln Val Gln Asn
 130 135 140
 Gly Asp Ala Asp Ile Lys Val Ser Phe Trp Gln Trp Ala His Glu Asp
 145 150 155 160
 Gly Trp Pro Phe Asp Gly Pro Gly Gly Ile Leu Gly His Ala Phe Leu
 165 170 175
 Pro Asn Ser Gly Asn Pro Gly Val Val His Phe Asp Lys Asn Glu His
 180 185 190
 Trp Ser Ala Ser Asp Thr Gly Tyr Asn Leu Phe Leu Val Ala Thr His
 195 200 205
 Glu Ile Gly His Ser Leu Gly Leu Gln His Ser Gly Asn Gln Ser Ser
 210 215 220
 Ile Met Tyr Pro Thr Tyr Trp Tyr His Asp Pro Arg Thr Phe Gln Leu
 225 230 235 240
 Ser Ala Asp Asp Ile Gln Arg Ile Gln His Leu Tyr Gly Glu Lys Cys
 245 250 255

Ser Ser Asp

<210> 6
 <211> 520
 <212> PRT
 <213> Homo sapiens

<400> 6

Met Val Ala Arg Val Gly Leu Leu Leu Arg Ala Leu Gln Leu Leu Leu
 1 5 10 15
 Trp Gly His Leu Asp Ala Gln Pro Ala Glu Arg Gly Gly Gln Glu Leu
 20 25 30
 Arg Lys Glu Ala Glu Ala Phe Leu Glu Lys Tyr Gly Tyr Leu Asn Glu
 35 40 45
 Gln Val Pro Lys Ala Pro Thr Ser Thr Arg Phe Ser Asp Ala Ile Arg
 50 55 60
 Ala Phe Gln Trp Val Ser Gln Leu Pro Val Ser Gly Val Leu Asp Arg
 65 70 75 80
 Ala Thr Leu Arg Gln Met Thr Arg Pro Arg Cys Gly Val Thr Asp Thr
 85 90 95
 Asn Ser Tyr Ala Ala Trp Ala Glu Arg Ile Ser Asp Leu Phe Ala Arg
 100 105 110
 His Arg Thr Lys Met Arg Arg Lys Lys Arg Phe Ala Lys Gln Gly Asn
 115 120 125
 Lys Trp Tyr Lys Gln His Leu Ser Tyr Arg Leu Val Asn Trp Pro Glu
 130 135 140
 His Leu Arg Ser Arg Gln Phe Gly Ala Pro Cys Ala Pro Pro Ser Ser
 145 150 155 160

Cys Gly Ala Thr Ser Gln Arg Trp Ser Ser Gly Arg Pro Gln Pro Gln
 165 170 175
 Ala Pro Leu Thr Ser Gly Ser Pro Ser Ser Lys Gly Thr Thr Thr Met
 180 185 190
 Gly Trp Ala Met Pro Leu Met Ala Gln Gly Ala Pro Trp Arg Thr Pro
 195 200 205
 Phe Leu Pro Arg Arg Gly Glu Ala His Phe Asp Gln Asp Glu Arg Trp
 210 215 220
 Ser Leu Ser Arg Arg Arg Gly Arg Asn Leu Phe Val Val Leu Ala His
 225 230 235 240
 Glu Ile Gly His Thr Leu Gly Leu Thr His Ser Pro Ala Pro Arg Ala
 245 250 255
 Leu Met Ala Pro Tyr Tyr Lys Arg Leu Gly Arg Asp Ala Leu Leu Ser
 260 265 270
 Trp Asp Asp Val Leu Ala Val Gln Ser Leu Tyr Gly Lys Pro Leu Gly
 275 280 285
 Gly Ser Val Ala Val Gln Leu Pro Gly Lys Leu Phe Thr Asp Phe Glu
 290 295 300
 Thr Trp Asp Ser Tyr Ser Pro Gln Gly Arg Arg Pro Glu Thr Gln Gly
 305 310 315 320
 Pro Lys Tyr Cys His Ser Ser Phe Asp Ala Ile Thr Val Asp Arg Gln
 325 330 335
 Gln Gln Leu Tyr Ile Phe Lys Gly Ser His Phe Trp Glu Val Ala Ala
 340 345 350
 Asp Gly Asn Val Ser Glu Pro Arg Pro Leu Gln Glu Arg Trp Val Gly
 355 360 365
 Leu Pro Pro Asn Ile Glu Ala Ala Ala Val Ser Leu Asn Asp Gly Asp
 370 375 380
 Phe Tyr Phe Phe Lys Gly Gly Arg Cys Trp Arg Phe Arg Gly Pro Lys
 385 390 395 400
 Pro Val Trp Gly Leu Pro Gln Leu Cys Arg Ala Gly Gly Leu Pro Arg
 405 410 415
 His Pro Asp Ala Ala Leu Phe Phe Pro Pro Leu Arg Arg Leu Ile Leu
 420 425 430
 Phe Lys Gly Ala Arg Tyr Tyr Val Leu Ala Arg Gly Gly Leu Gln Val
 435 440 445
 Glu Pro Tyr Tyr Pro Arg Ser Leu Gln Asp Trp Gly Gly Ile Pro Glu
 450 455 460
 Glu Val Ser Gly Ala Leu Pro Arg Pro Asp Gly Ser Ile Ile Phe Phe
 465 470 475 480
 Arg Asp Asp Arg Tyr Trp Arg Leu Asp Gln Ala Lys Leu Gln Ala Thr
 485 490 495
 Thr Ser Gly Arg Trp Ala Thr Glu Leu Pro Trp Met Gly Cys Trp His
 500 505 510

Ala Asn Ser Gly Ser Ala Leu Phe
515 520

<210> 7
<211> 999
<212> DNA
<213> Homo sapiens

<300>
<301> Park, H.I., Ni, J., Gerkema, F.E., Liu, D., Belozero Sang, Q.X.
<302> Identification and characterization of human endometallopeptinase-26) from endometria
l tumor
<303> J. Biol. Chem.
<304> 275
<305> 27
<306> 20540-20544
<307> 2000-03-23
<308> GenBankAF248646
<309> 2000-03-23

<300>
<308> GenbankAF248646
<309> 2000-03-23

<400> 7
ggcagcagca tgcagctcgt catcttaaga gttactatct tcttgccctg gtgtttcgcc 60
gttccagtgc cccctgctgc agaccataaa ggatgggact ttgttgaggg ctatttccat 120
caatttttcc tgaccgagaa ggagtcgcca ctccttacc aggagacaca aacacagctc 180
ctgcaacaat tccatcgga tgggacagac ctacttgaca tgcagatgca tgctctgcta 240
caccagcccc actgtggggt gcctgatggg tccgacacct ccatctcgcc aggaagatgc 300
aagtggaata agcacactct aacttacagg attatcaatt acccacatga tatgaagcca 360
tccgcagtga aagacagtat atataatgca gtttccatct ggagcaatgt gaccctttg 420
atattccagc aagtgcagaa tggagatgca gacatcaagg tttctttctg gcagtgggcc 480
catgaagatg gttggccctt tgatgggcca ggtggtatct taggccatgc ctttttacca 540
aattctggaa atcctggagt tgtccatttt gacaagaatg aacactggtc agcttcagac 600
actggatata atctgttctt ggttgcaact catgagattg ggcatctttt gggcctgcag 660
cactctggga atcagagctc cataatgtac cccacttact ggtatcacga ccctagaacc 720
ttccagctca gtgccgatga tatccaaagg atccagcatt tgtatggaga aaaatgttca 780
tctgacatac cttaatgtta gcacagagga cttattcaac ctgtctttca gggagtttat 840
tggaggatca aagaactgaa agcactagag cagccttggg gactgctagg atgaagcct 900
aaagaatgca acctagtcag gttagctgaa ccgacactca aaacgctact gagtcacaat 960
aaagattggt ttaaagagta aaaaaaaaaa aaaaaaaaaa 999

<210> 8
<211> 261
<212> PRT
<213> Homo sapiens

<300>
 <301> Park, H.I., Ni, J., Gerkema, F.E., Liu, D., Belozero Sang, Q.X.
 <302> Identification and characterization of human endometalloproteinase-26) from endometrial tumor
 <303> J. Biol. Chem.
 <304> 275
 <305> 27
 <306> 20540-205444
 <307> 2000-03-23
 <308> GenBankAF248626
 <309> 2001-03-23

<300>
 <308> GenbankAF248646
 <309> 2000-03-23

<400> 8

```
Met Gln Leu Val Ile Leu Arg Val Thr Ile Phe Leu Pro Trp Cys Phe
1          5          10          15

Ala Val Pro Val Pro Pro Ala Ala Asp His Lys Gly Trp Asp Phe Val
          20          25          30

Glu Gly Tyr Phe His Gln Phe Phe Leu Thr Glu Lys Glu Ser Pro Leu
          35          40          45

Leu Thr Gln Glu Thr Gln Thr Gln Leu Leu Gln Gln Phe His Arg Asn
          50          55          60

Gly Thr Asp Leu Leu Asp Met Gln Met His Ala Leu Leu His Gln Pro
65          70          75          80

His Cys Gly Val Pro Asp Gly Ser Asp Thr Ser Ile Ser Pro Gly Arg
          85          90          95

Cys Lys Trp Asn Lys His Thr Leu Thr Tyr Arg Ile Ile Asn Tyr Pro
          100          105          110

His Asp Met Lys Pro Ser Ala Val Lys Asp Ser Ile Tyr Asn Ala Val
          115          120          125

Ser Ile Trp Ser Asn Val Thr Pro Leu Ile Phe Gln Gln Val Gln Asn
          130          135          140

Gly Asp Ala Asp Ile Lys Val Ser Phe Trp Gln Trp Ala His Glu Asp
          145          150          155          160

Gly Trp Pro Phe Asp Gly Pro Gly Gly Ile Leu Gly His Ala Phe Leu
          165          170          175

Pro Asn Ser Gly Asn Pro Gly Val Val His Phe Asp Lys Asn Glu His
          180          185          190

Trp Ser Ala Ser Asp Thr Gly Tyr Asn Leu Phe Leu Val Ala Thr His
          195          200          205

Glu Ile Gly His Ser Leu Gly Leu Gln His Ser Gly Asn Gln Ser Ser
          210          215          220

Ile Met Tyr Pro Thr Tyr Trp Tyr His Asp Pro Arg Thr Phe Gln Leu
          225          230          235          240

Ser Ala Asp Asp Ile Gln Arg Ile Gln His Leu Tyr Gly Glu Lys Cys
```

245

00014regUS.ST25.txt
250 255

Ser Ser Asp Ile Pro
260